

ABSTRACT OF THE DISCLOSURE

[0061] A DLL provides a deskew mode for aligning a reference clock that passes through a clock distribution tree to a feedback by adding additional delay to the feedback clock to align the feedback clock with reference clock at one cycle later. A 0 ns clock-to-out mode is provided by adding additional delay to account for an input buffer into a feedback path. The feedback clock can be doubled by a clock doubler with 50% duty cycle adjustment disposed in the feedback path. Flexible timing is aligning the reference clock to the feedback clock is obtained with additional delay elements disposed in the feedback and reference clock paths.